

# SCIENCE

# *And Technology Program*



## Suitability of Glacial Till for Irrigation

Joe Brummer and Arden Frietag

FY 1998 - FY 2000

Reclamation soil and drainage experts have traditionally maintained that irrigation of Glacial Till lands cannot be successful without completion of expensive drainage works. Private irrigators report some success irrigating these lands. Very few drains have been installed to date. Reclamation has a continuing requirement to evaluate Glacial Till lands.

Objectives were to survey existing irrigation development on private irrigation projects to determine the relative success of irrigation. Depth to groundwater, surface drainage, and soil salinity conditions are being examined.

Irrigation of till seems to be somewhat successful. The biggest problem appears to be surface drainage restrictions associated with swale areas and closed depressions. Soil salinity is building up on irrigated till lands, but is not at harmful levels. Most salts applied in the irrigation water are being leached out of the top 5 feet of soil.

Mid Pacific Region  
Great Plains Region  
Dakota Area Office  
North Dakota State Irrigation Advisor  
Several Growers